Refine Search

Search Results -

Terms	Documents
340/995	2743

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Derwent World Patents Index
IBM Technical Disclosure Bulletins

Search:

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Recall Text Clear Interrupt

Search History

DATE: Saturday, June 11, 2005 Printable Copy Create Case

Set Name side by side	**Query**	**Hit Count**	**Set Name** result set
	DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR		
L70	340/995	2743	L70
L69	340/991	675	L69
L68	340/990	2249	L68
L67	340.clas.	153254	L67
L66	701/209	1662	L66
L65	701/200	2382	L65
L64	701.clas.	32998	L64
L63	707.clas.	27198	L63
L62	707/200	3741	L62
L61	707/104.1	4204	L61
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L60	5835854.pn.	1	L60
L59	5864305.pn.	1	L59

DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR

L58	L55 and (kd-tree or peano with tree)	26	L58
L57	L55 and (sub-areas or sub with areas or subareas)	12	L57
L56	L55 and (sub-areas or sub with areas)	12	L56
L55	L54 and parcels	156	L55
L54	L53 and (geographic or geographical or geographic$) with (features or characteristics)	1844	L54
L53	map and (database or data with base)	89928	L53
L52	(4692880 | 4685068 | 4706198 | 3597745 | 4550317 | 4773026 | 4737927)![PN]	14	L52
L51	('4888698')[PN]	2	L51
L50	(5754846 | 5036471 | 4888698 | 5170353 | 5285391 | 5406493 | 4630209 | 5168452 | 4937572 | 5592665)![PN]	20	L50
L49	('5974419')[PN]	2	L49
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L46	('4888698')[URPN]	32	L46
L45	l27 and l44	5	L45
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L43	l29 and l40	0	L43
L42	l31 and L40	0	L42
L41	l31 and l38 and L40	0	L41
L40	L28 not l29 not l30	6390	L40
L39	L38 and (rectangle or rectangular or rectangul$)	1	L39
L38	l31 and (index or indices)	9	L38
L37	(5848373 | 6121924 | 6421659 | 2001/0054008 | 6006160 | 6026384 | 5559707 | 4954958 | 6487495 | 6154658 | 6246417 | 5636122 | 6513019 | 6480783 | 5543789 | 6014629 | 6546334 | 6708112 | 6430499 | 6246958 | 5777618 | 6539419 | 5408597 | 5944769)![PN]	46	L37
L36	('6691128'| '6836781')[PN]	4	L36
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L30	L29 and (parcels or sections or segments)	603	L30
L29	L28 and geographic with (features or characteristics)	909	L29
L28	geographic$ with (database or data with base)	7299	L28
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L7	"fernekes, robert".in.	24	L7
L6	"lampert, david".in.	28	L6
L5	"ashby, richard".in.	49	L5
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L1	5968109.pn.	2	L1

END OF SEARCH HISTORY

L45: Entry 1 of 5 File: USPT Oct 31, 2000

US-PAT-NO: 6141454
DOCUMENT-IDENTIFIER: US 6141454 A

TITLE: Methods for data compression and decompression using digitized topology data

DATE-ISSUED: October 31, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Seymour; Leslie G.	Barrington	IL		
Daniel; Sam	Tempe	AZ		
Buettner; Kevin	Fountain Hill	AZ		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Motorola	Schaumburg	IL			02

APPL-NO: 08/ 742299 [PALM]
DATE FILED: November 1, 1996

INT-CL: [07] G06 K 9/00

US-CL-ISSUED: 382/243; 382/108
US-CL-CURRENT: 382/243; 382/108

FIELD-OF-SEARCH: 382/126, 382/106, 382/108, 382/109, 382/113, 382/114, 382/154, 382/181, 382/190, 382/192, 382/195, 382/197, 382/199, 382/201, 382/202, 382/203, 382/204, 382/209, 382/217, 358/426, 345/348, 345/346, 345/349, 345/355

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected Search ALL Clear

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
4729127	March 1988	Chan et al.	382/56
4845651	July 1989	Aizawa et al.	382/285
4928313	May 1990	Leonard et al.	382/8
5058186	October 1991	Miyaoka et al.	382/154
5216726	June 1993	Heaton	382/56
5386507	January 1995	Teig et al.	395/161

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
0 394 517 B1	April 1989	EP	

OTHER PUBLICATIONS

"An Interpolation and Compaction Technique for Gridded Data" by David L. Cozart, Jun. 27, 1983 Airforce Office of Scientific Research. Grant No. AFOSR-82-0166. Bolling AFB, DC, 20332. No Page #.

ART-UNIT: 271

PRIMARY-EXAMINER: Boudreau; Leo H.

ASSISTANT-EXAMINER: Tadayon; Bijan

ATTY-AGENT-FIRM: Smith; Michael L.

ABSTRACT:

A digitized topology data compression and decompression method provides the digitized topology data of a collection of segments connected to each other via nodes. The method forms at least one composite line representing a chain of connected segments, which reduces an overall number of lines needed to represent the collection of segments and where each composite line has two end points at known coordinates, resulting in compression of the topology data. The method further represents each composite line by its respective end point coordinates. Next, the method enrolls each composite line into one of at least two sets of composite lines for minimizing a number of intersections between each of the composite lines within each of the sets of composite lines. Finally, the method reconstructs the nodes at a decompression time by calculating coordinates of intersecting composite lines belonging to different sets of composite lines.

16 Claims, 32 Drawing figures

Previous Doc Next Doc Go to Doc#

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Term:

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Set Name side by side	Query	Hit Count	Set Name result set
	DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR		
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L23	(5488563 | 5566073 | 5148179 | 5839080 | 5721679 | 5450345 | 5751576 | 4682160 | 4812991 | 5475594 | 4224669)![PN]	22	L23
L22	('5995903')[PN]	2	L22
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L1	6107961.pn.	2	L1

END OF SEARCH HISTORY

Terms used
geographical and **database** and **gps parcels** and **sub areas and. index**

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1 Location awareness and moving objects: Efficient placement of geographical data over broadcast channel for spatial range query under quadratic cost model
Jianting Zhang, Le Gruenwald
September 2003 **Proceedings of the 3rd ACM international workshop on Data engineering for wireless and mobile access**
Full text available: pdf(326.37 KB) Additional Information: full citation, abstract, references, index terms

Data broadcasting is well known for its excellent scalability. Most geographical data, such as weather and traffic, is public information that has a large amount of potential users which makes it very suitable for broadcast. The query response time is greatly affected by the order in which data items are being broadcast. This paper proposes an efficient method to place geographical data items over broadcast channel that reduces access time for spatial range queries on them. This paper then perfo ...

Keywords: cost model, data broadcast, geographical information, mobile computing, optimization, query processing

2 Vision & challenges: Challenge: ubiquitous location-aware computing and the "place lab" initiative
Bill N. Schilit, Anthony LaMarca, Gaetano Borriello, William G. Griswold, David McDonald, Edward Lazowska, Anand Balachandran, Jason Hong, Vaughn Iverson
September 2003 **Proceedings of the 1st ACM international workshop on Wireless mobile applications and services on WLAN hotspots**
Full text available: pdf(835.48 KB) Additional Information: full citation, abstract, references, citings, index terms

To be widely adopted, location-aware computing must be as effortless, familiar and rewarding as web search tools like Google. We envisage the global scale Place Lab, consisting of an open software base and a community building activity as a way to bootstrap the broad adoption of location-aware computing. The initiative is a laboratory because it will also be a vehicle for research and instruction, especially in the formative stages. The authors draw on their experiences with campus and building- ...

Keywords: GPS, WiFi, context-aware, location-aware, positioning systems, ubiquitous, wardriving, web services, wireless hotspots

3 Location awareness and moving objects: Probabilistic range queries in moving objects databases with uncertainty
Goce Trajcevski
September 2003 **Proceedings of the 3rd ACM international workshop on Data engineering for wireless and mobile access**
Full text available: pdf(177.66 KB) Additional Information: full citation, abstract, references, index terms

This work addresses the issue of answering spatio-temporal range queries when there is uncertainty associated with the model of the moving objects. Uncertainty is inherent in Moving Objects Database (MOD) applications and capturing it in the data model has a twofold impact: -- the number of updates when the actual trajectory deviates from its MOD representation; -- the linguistic constructs and the processing algorithms for querying the MOD. The paper presents both spatial and temporal uncertain ...

Keywords: moving objects databases, quantitative probability, uncertainty

4 Mobile computing and applications (MCA): Wireless spatio-semantic transactions on multimedia datasets
James D. Carswell, Keith Gardiner, Marco Neumann
March 2004 **Proceedings of the 2004 ACM symposium on Applied computing**
Full text available: pdf(192.64 KB) Additional Information: full citation, abstract, references, index terms

Advances in spatially enabled semantic computing can provide situation aware assistance for mobile users. This intelligent and context-aware technology presents the right information at the right time, place and situation by exploiting semantically referenced data for knowledge discovery. The system takes advantage of new metadata standards to enable semantic, user, and device adapted transactions on multimedia datasets. Information accessed in the past and the activities planned by the user, th ...

Keywords: location based services, semantic queries, spatial data transactions

5 Towards scalable location-aware services: requirements and research issues
Mohamed F. Mokbel, Walid G. Aref, Susanne E. Hambrusch, Sunil Prabhakar
November 2003 **Proceedings of the 11th ACM international symposium on Advances in geographic information systems**
Full text available: pdf(195.35 KB) Additional Information: full citation, abstract, references, index terms

The emergence of location-aware services calls for new real time spatio-temporal query processing algorithms that deal with large numbers of mobile objects and queries. Online query response is an important characterization of location-aware services. A delay in the answer to a query gives invalid and obsolete results, simply because moving objects can change their locations before the query responds. To handle large numbers of spatio-temporal queries efficiently, we propose the idea of *shari ...*

***Keywords:** location-aware services, moving objects, spatio-temporal databases*

6 Managing images: Geographic location tags on digital images
Kentaro Toyama, Ron Logan, Asta Roseway
November 2003 **Proceedings of the eleventh ACM international conference on Multimedia**
Full text available: pdf(1.97 MB) Additional Information: full citation, abstract, references, citings, index terms

We describe an end-to-end system that capitalizes on geographic location tags for digital

photographs. The World Wide Media eXchange (WWMX) database indexes large collections of image media by several pieces of metadata including timestamp, owner, and critically, location stamp. The location where a photo was shot is important because it says much about its semantic content, while being relatively easy to acquire, index, and search.The process of building, browsing, and writing applications for ...

Keywords: GIS, digital photography, geographic interfaces, image databases

7 Range and *k*NN query processing for moving objects in grid model
Hae Don Chon, Divyakant Agrawal, Amr El Abbadi
August 2003 **Mobile Networks and Applications**, Volume 8 Issue 4
Full text available: pdf(210.77 KB) Additional Information: full citation, abstract, references, citings, index terms

With the growing popularity of mobile computing devices and wireless communications, managing dynamically changing information about moving objects is becoming feasible. In this paper, we implement a system that manages such information and propose two query algorithms: a range query algorithm and a *k* nearest neighbor algorithm. The range query algorithm is combined with an efficient filtering technique which determines if a polyline corresponding to the trajectory of a moving object inte ...

Keywords: k nearest neighbors query, moving objects, range query

8 Aurora: a new model and architecture for data stream management
Daniel J. Abadi, Don Carney, Ugur Çetintemel, Mitch Cherniack, Christian Convey, Sangdon Lee, Michael Stonebraker, Nesime Tatbul, Stan Zdonik
August 2003 **The VLDB Journal — The International Journal on Very Large Data Bases**, Volume 12 Issue 2
Full text available: pdf(585.97 KB) Additional Information: full citation, abstract, citings, index terms

Abstract.This paper describes the basic processing model and architecture of Aurora, a new system to manage data streams for monitoring applications. Monitoring applications differ substantially from conventional business data processing. The fact that a software system must process and react to continual inputs from many sources (e.g., sensors) rather than from human operators requires one to rethink the fundamental architecture of a DBMS for this application area. In this paper, we present Aur ...

Keywords: Continuous queries, Data stream management, Database triggers, Quality-of-service, Real-time systems

9 Queries and aggregation: Cleaning and querying noisy sensors
Eiman Elnahrawy, Badri Nath
September 2003 **Proceedings of the 2nd ACM international conference on Wireless sensor networks and applications**
Full text available: pdf(256.08 KB) Additional Information: full citation, abstract, references, citings, index terms

Sensor networks have become an important source of data with numerous applications in monitoring various real-life phenomena as well as industrial applications and traffic control. Unfortunately, sensor data is subject to several sources of errors such as noise from external sources, hardware noise, inaccuracies and imprecision, and various environmental effects. Such errors may seriously impact the answer to any query posed to the sensors. In particular, they may yield imprecise or even incorre ...

Keywords: bayesian theory, noisy sensors, query evaluation, statistics, uncertainty, wireless sensor networks

10 Special section on sensor network technology and sensor data managment: The Cougar Project: a work-in-progress report
Alan Demers, Johannes Gehrke, Rajmohan Rajaraman, Niki Trigoni, Yong Yao
December 2003 **ACM SIGMOD Record**, Volume 32 Issue 4
Full text available: pdf(255.68 KB) Additional Information: full citation, abstract, references

We present an update on the status of the Cougar Sensor Database Project, in which we are investigating a database approach to sensor networks: Clients "program" the sensors through *queries* in a high-level *declarative* language (such as a variant of SQL). In this paper, we give an overview of our activities on energy-efficient data dissemination and query processing. Due to space constraints, we cannot present a full menu of results; instead, we decided to only whet the reader's app ...

11 Indexing of network constrained moving objects
Dieter Pfoser, Christian S. Jensen
November 2003 **Proceedings of the 11th ACM international symposium on Advances in geographic information systems**
Full text available: pdf(574.96 KB) Additional Information: full citation, abstract, references, index terms

With the proliferation of mobile computing, the ability to index efficiently the movements of mobile objects becomes important. Objects are typically seen as moving in two-dimensional (x,y) space, which means that their movements across time may be embedded in the three-dimensional (x,y,t) space. Further, the movements are typically represented as trajectories, sequences of connected line segments. In certain cases, movement is restricted, and specifically in this paper, we aim at ...

Keywords: indexing moving objects, indexing network data, moving object databases, spatiotemporal databases

12 Reception and posters: Location-aware data broadcasting: an application for digital mobile broadcasting in Japan
Kinji Matsumura, Kazuya Usui, Kenjiro Kai, Koichi Ishikawa
November 2003 **Proceedings of the eleventh ACM international conference on Multimedia**
Full text available: pdf(1.19 MB) Additional Information: full citation, abstract, references, index terms

Terrestrial digital broadcasting that uses the ISDB-T (Integrated Services Digital Broadcasting-Terrestrial) system is scheduled for launch in Japan in December 2003. This system also enables mobile broadcasting service, which will be offered a few years later. We are developing a Location-Aware Data Broadcasting Service as a remarkably new type of interactive mobile broadcasting service. In this paper, we describe the service application, information filtering method, and presentation technique ...

Keywords: BML, GPS, ISDB, data broadcasting, location-aware, mobile reception, terrestrial digital broadcasting

13 Evaluation: Developing a digital learning environment: an evaluation of design and implementation processes
Leslie Champeny, Christine L. Borgman, Gregory H. Leazer, Anne J. Gilliland-Swetland, Kelli A. Millwood, Leonard D'Avolio, Jason R. Finley, Laura J. Smart, Patricia D. Mautone, Richard E.

Mayer, Richard A. Johnson
June 2004 **Proceedings of the 4th ACM/IEEE-CS joint conference on Digital libraries**

Full text available: pdf(216.42 KB) Additional Information: full citation, abstract, references

The Alexandria Digital Earth Prototype (ADEPT) Project (1999--2004) builds upon the Alexandria Digital Library Project (1994--1999) to add functions and services for undergraduate teaching to a digital library of geospatial resources. The 'Digital Learning Environment' (DLE) services are being developed and evaluated iteratively over the course of this research project. In the 2002--2003 academic year, the DLE was implemented during the fall and spring terms in undergraduate geography courses at ...

14 Discrete event simulation experiments and geographic information systems in congestion management planning
Roy Brooks Wiley, Thomas K. Keyser
December 1998 **Proceedings of the 30th conference on Winter simulation**

Full text available: pdf(109.58 KB) Additional Information: full citation, references, index terms

15 A foundation for representing and querying moving objects
Ralf Hartmut Güting, Michael H. Böhlen, Martin Erwig, Christian S. Jensen, Nikos A. Lorentzos, Markus Schneider, Michalis Vazirgiannis
March 2000 **ACM Transactions on Database Systems (TODS)**, Volume 25 Issue 1

Full text available: pdf(268.05 KB) Additional Information: full citation, abstract, references, citings, index terms

Spatio-temporal databases deal with geometries changing over time. The goal of our work is to provide a DBMS data model and query language capable of handling such time-dependent geometries, including those changing continuously that describe moving objects. Two fundamental abstractions are moving point and moving region, describing objects for which only the time-dependent position, or position and extent, respectively, are of interest. We ...

Keywords: abstract data types, algebra, moving objects, moving point, moving region, spatio-temporal data types, spatio-temporal databases

16 Object oriented spatial positioning systems
István Kádár, Erik Papp
July 1998 **ACM SIGAPL APL Quote Quad , Proceedings of the APL98 conference on Array processing language**, Volume 29 Issue 3

Full text available: pdf(954.50 KB) Additional Information: full citation, abstract, references, index terms

The domains of a structured spatial positioning systems are extended to a single 2D or 3D boundary rectangle (MBR - Minimal axes-parallel Boundary Rectangle) domain. We try to encapsulate the domains strictly for the inside and/or the boundary (surface) of the object during our attempts. In ease of such domains it is impossible to use traditional coordinates because of boundary irregularity. Therefore we applied 2D and 3D versions of subrange type data structure for spatial indexing, which are w ...

17 Spatio-temporal data reduction with deterministic error bounds
Hu Cao, Ouri Wolfson, Goce Trajcevski
September 2003 **Proceedings of the 2003 joint workshop on Foundations of mobile computing**

Full text available: pdf(243.00 KB) Additional Information: full citation, abstract, references, citings, index terms

A common way of storing spatio-temporalinformation about mobile devices is in the form of a 3D (2D geography + time) trajectory. We argue that when cellular phones and Personal Digital Assistants become location-aware, the size of the spatio-temporal information generated may prohibit efficient processing. We propose to adopt a technique studied in computer graphics, namely line-simplification, as an approximation technique to solve this problem. Line simplification uses a distance function in p ...

Keywords: line simplification, moving objects database

18 Ubiquitous computing (UC): Route profiling: putting context to work
Anthony Harrington, Vinny Cahill
March 2004 **Proceedings of the 2004 ACM symposium on Applied computing**
Full text available: pdf(232.60 KB) Additional Information: full citation, abstract, references, index terms

Intelligent Transportation Systems are characterised by a requirement for detailed information on extensive transport networks. This information is typically gathered from sensors deployed throughout the network and is used for management and maintenance operations.In this paper we present the design and prototype implementation of a context-aware route profiling application intended for use by road management authorities in the Republic of Ireland. Our design allows data from a variety of sourc ...

Keywords: ITS, context-aware, ubiquitous computing

19 Modeling location-based services with subject spaces
Hubert Ka Yau Leung, Ioana Burcea, Hans-Amo Jacobsen
October 2003 **Proceedings of the 2003 conference of the Centre for Advanced Studies on Collaborative research**
Full text available: pdf(246.48 KB) Additional Information: full citation, abstract, references, index terms

The advance in wireless networks and in positioning systems has led to the development of a new generation of mobile applications: location-based services (LBS). LBS offer highly personalized services to users of mobile devices such as telephones, pagers, and PDAs (mobile users) based on their locations, user profiles and context information. The publish/subscribe paradigm is an information dissemination model for loosely-coupled distributed applications, and is appropriate for the implementatio ...

20 Geographic aspects of digital libraries: Automatic organization for digital photographs with geographic coordinates
Mor Naaman, Yee Jiun Song, Andreas Paepcke, Hector Garcia-Molina
June 2004 **Proceedings of the 4th ACM/IEEE-CS joint conference on Digital libraries**
Full text available: pdf(381.48 KB) Additional Information: full citation, abstract, references, citings, index terms

We describe PhotoCompas, a system that utilizes the time and location information embedded in digital photographs to automatically organize a personal photo collection PhotoCompas produces browseable location and event hierarchies for the collection. These hierarchies are created using algorithms that interleave time and location to produce an organization that mimics the way people think about their photo collections. In addition, our algorithm annotates the generated hierarchy with geographica ...

Keywords: GPS, geo-referenced photos, personal photo collection, photo browser

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HV/VH trees: a new spatial data structure for fast region queries

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REFERENCES

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1 Carver Mead , Lynn Conway, Introduction to VLSI Systems, Addison-Wesley Longman Publishing Co., Inc., Boston, MA, 1979

2 Gershon Kedem, The quad-CIF tree: A data structure for hierarchical on-line algorithms, Proceedings of the 19th conference on Design automation, p.352-357, January 1982

3 J. K. Ousterhout, "Corner stitching: a data-structuring technique for VLSI layout tools," IEEE Trans. on Computer-Aided Design, CAD-3, 1 (January 1984).

4 J. B. Rosenberg, "Geographical data structures compared: a study of data structures supporting region queries," IEEE Trans. on Computer-Aided Design, CAD-4, 1 (January 1985).

5 R. L. Brown, "Multiple storage quad trees: a simpler faster alternative to bisector list quad trees," IEEE Trans. on Computer-Aided Design, CAD-5, 3 (July 1986}.

6 L. Weyten and W. de Pauw, "Quad list qua() trees: a geometrical data structure with improved

performance for large region queries," IEEE Trans. on Computer-Aided Design, 8, 3 (March 1.989).

7 A. Pitaksanonkul, S. Thanawastien, and C. Lursinsap, "Comparisons of qua() trees and 4-D trees: new results," IEEE Trans. on Computer-Aided Design, 8, 11 (November 1989).

8 D. Maxple, M. Smulders, and H. Hegen, "Tailor: A layout system based on trapezoidal corner stitching," IEEE Trans. on Computer-Aided Design, 9, 1 (January 1990).

↑ CITINGS

Narendra V. Shenoy , William Nicholls, An efficient routing database, Proceedings of the 39th conference on Design automation, June 10-14, 2002, New Orleans, Louisiana, USA

↑ INDEX TERMS

Primary Classification:

B. Hardware
- ↪ **B.7** INTEGRATED CIRCUITS
  - ↪ **B.7.1** Types and Design Styles
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Additional Classification:

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- ↪ **E.1** DATA STRUCTURES
  - ↪ **Subjects:** Trees

F. Theory of Computation
- ↪ **F.2** ANALYSIS OF ALGORITHMS AND PROBLEM COMPLEXITY
  - ↪ **F.2.2** Nonnumerical Algorithms and Problems
    - ↪ **Subjects:** Sorting and searching

G. Mathematics of Computing
- ↪ **G.2** DISCRETE MATHEMATICS
  - ↪ **G.2.2** Graph Theory
    - ↪ **Subjects:** Trees

General Terms:
Algorithms, Design, Performance

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1 Database session 8: interactive data exploration: Hierarchical graph indexing
James Abello, Yannis Kotidis
November 2003 **Proceedings of the twelfth international conference on Information and knowledge management**
Full text available: pdf(369.96 KB) Additional Information: full citation, abstract, references, index terms

Traffic analysis, in the context of Telecommunications or Internet and Web data, is crucial for large network operations. Data in such networks is often provided as large graphs with hundreds of millions of vertices and edges. We propose efficient techniques for managing such graphs at the storage level in order to facilitate its processing at the interface level (visualization). The methods are based on a hierarchical decomposition of the graph edge set that is inherited from a hierarchical deco ...

Keywords: graph, index, navigation, visualization

2 The hB $^\Pi$-tree: a multi-attribute index supporting concurrency, recovery and node consolidation
Georgios Evangelidis, David Lomet, Betty Salzberg
February 1997 **The VLDB Journal — The International Journal on Very Large Data Bases**, Volume 6 Issue 1
Full text available: pdf(314.15 KB) Additional Information: full citation, abstract, citings, index terms

We propose a new multi-attribute index. Our approach combines the hB-tree, a multi-attribute index, and the Π-tree, an abstract index which offers efficient concurrency and recovery methods. We call the resulting method the hB $^\Pi$-tree. We describe several versions of the hB $^\Pi$-tree, each using a different node-splitting and index-term-posting algorithm. We also describe a new node deletion algorithm. We have implemented all the versions of the hB $^\Pi$-tree. Our performance results ...

Keywords: Concurrency, Multi-attribute index, Node consolidation, Recovery

3 Searching in high-dimensional spaces: Index structures for improving the performance of multimedia databases
Christian Böhm, Stefan Berchtold, Daniel A. Keim
September 2001 **ACM Computing Surveys (CSUR)**, Volume 33 Issue 3
Additional Information:

Full text available: pdf(1.39 MB) full citation, abstract, references, citings, index terms

During the last decade, multimedia databases have become increasingly important in many application areas such as medicine, CAD, geography, and molecular biology. An important research issue in the field of multimedia databases is the content-based retrieval of similar multimedia objects such as images, text, and videos. However, in contrast to searching data in a relational database, a content-based retrieval requires the search of similar objects as a basic functionality of the database system ...

Keywords: Index structures, indexing high-dimensional data, multimedia databases, similarity search

4 Join processing in relational databases
Priti Mishra, Margaret H. Eich
March 1992 **ACM Computing Surveys (CSUR)**, Volume 24 Issue 1

Full text available: pdf(4.42 MB) Additional Information: full citation, abstract, references, citings, index terms, review

The join operation is one of the fundamental relational database query operations. It facilitates the retrieval of information from two different relations based on a Cartesian product of the two relations. The join is one of the most diffidult operations to implement efficiently, as no predefined links between relations are required to exist (as they are with network and hierarchical systems). The join is the only relational algebra operation that allows the combining of related tuples fro ...

Keywords: database machines, distributed processing, join, parallel processing, relational algebra

5 Video I: Fast and robust short video clip search using an index structure
Junsong Yuan, Ling-Yu Duan, Qi Tian, Changsheng Xu
October 2004 **Proceedings of the 6th ACM SIGMM international workshop on Multimedia information retrieval**

Full text available: pdf(339.97 KB) Additional Information: full citation, abstract, references, index terms

In this paper, we present an index structure-based method to fast and robustly search short video clips in large video collections. First we temporally segment a given long video stream into overlapped matching windows, then map extracted features from the windows into points in a high dimensional feature space, and construct index structures for these feature points for querying process. Different from linear-scan similarity matching methods, querying process can be accelerated by spatial pr ...

Keywords: fast query, spatial-temporal feature, video content identification, video similarity search

6 Locally adaptive dimensionality reduction for indexing large time series databases
Kaushik Chakrabarti, Eamonn Keogh, Sharad Mehrotra, Michael Pazzani
June 2002 **ACM Transactions on Database Systems (TODS)**, Volume 27 Issue 2

Full text available: pdf(1.48 MB) Additional Information: full citation, abstract, references, citings, index terms

Similarity search in large time series databases has attracted much research interest recently. It is a difficult problem because of the typically high dimensionality of the data. The most promising solutions involve performing dimensionality reduction on the data, then

indexing the reduced data with a multidimensional index structure. Many dimensionality reduction techniques have been proposed, including Singular Value Decomposition (SVD), the Discrete Fourier transform (DFT), and the Discrete ...

Keywords: Dimensionality reduction, indexing, time-series similarity retrieval

7 The time index+: an incremental access structure for temporal databases
Vram Kouramajian, Ibrahim Kamel, Ramez Elmasri, Syed Waheed
November 1994 **Proceedings of the third international conference on Information and knowledge management**
Full text available: pdf(872.15 KB) Additional Information: full citation, references, citings, index terms

8 Using a sequential index in terrain-aided navigation
Ling Lin, Tore Risch
January 1997 **Proceedings of the sixth international conference on Information and knowledge management**
Full text available: pdf(1.06 MB) Additional Information: full citation, references, index terms

Keywords: indexing, interpolation, query processing, sequences, terrain-aided navigation

9 Indexing values of time sequences
Ling Lin, Tore Risch, Martin Sköld, Dushan Badal
November 1996 **Proceedings of the fifth international conference on Information and knowledge management**
Full text available: pdf(802.28 KB) Additional Information: full citation, references, citings, index terms

10 Indexing images in Oracle8i
Melliyal Annamalai, Rajiv Chopra, Samuel DeFazio, Susan Mavris
May 2000 **ACM SIGMOD Record , Proceedings of the 2000 ACM SIGMOD international conference on Management of data**, Volume 29 Issue 2
Full text available: pdf(189.09 KB) Additional Information: full citation, abstract, references, citings, index terms

Content-based retrieval of images is the ability to retrieve images that are similar to a query image. Oracle8i Visual Information Retrieval provides this facility based on technology licensed from Virage, Inc. This product is built on top of Oracle8i interMedia which enables storage, retrieval and management of images, audios and videos. Images are matched using attributes such as color, texture and structure and efficient content-based retrieval is provided using indexes of an image index t ...

11 Special issue on spatial database systems: An introduction to spatial database systems
Ralf Hartmut Güting
October 1994 **The VLDB Journal — The International Journal on Very Large Data Bases**, Volume 3 Issue 4
Full text available: pdf(2.50 MB) Additional Information: full citation, abstract, references, citings

We propose a definition of a spatial database system as a database system that offers spatial data types in its data model and query language, and supports spatial data types in

its implementation, providing at least spatial indexing and spatial join methods. Spatial database systems offer the underlying database technology for geographic information systems and other applications. We survey data modeling, querying, data structures and algorithms, and system architecture for such systems. The em ...

12 Dynamic vp-tree indexing for *n*-nearest neighbor search given pair-wise distances
Ada Wai-chee Fu, Polly Mei-shuen Chan, Yin-Ling Cheung, Yiu Sang Moon
July 2000 **The VLDB Journal — The International Journal on Very Large Data Bases**, Volume 9 Issue 2
Full text available: pdf(232.09 KB) Additional Information: full citation, abstract, citings, index terms

For some multimedia applications, it has been found that domain objects cannot be represented as feature vectors in a multidimensional space. Instead, pair-wise distances between data objects are the only input. To support content-based retrieval, one approach maps each object to a *k*-dimensional (*k*-d) point and tries to preserve the distances among the points. Then, existing spatial access index methods such as the R-trees and KD-trees can support fast searching on the resulting
Keywords*: Content-based retrieval, Indexing, Nearest neighbor search, Pair-wise distances, Updating*

13 Searching in metric spaces
Edgar Chávez, Gonzalo Navarro, Ricardo Baeza-Yates, José Luis Marroquín
September 2001 **ACM Computing Surveys (CSUR)**, Volume 33 Issue 3
Full text available: pdf(916.04 KB) Additional Information: full citation, abstract, references, citings, index terms

The problem of searching the elements of a set that are close to a given query element under some similarity criterion has a vast number of applications in many branches of computer science, from pattern recognition to textual and multimedia information retrieval. We are interested in the rather general case where the similarity criterion defines a metric space, instead of the more restricted case of a vector space. Many solutions have been proposed in different areas, in many cases without cros ...

Keywords: Curse of dimensionality, nearest neighbors, similarity searching, vector spaces

14 Partition based spatial-merge join
Jignesh M. Patel, David J. DeWitt
June 1996 **ACM SIGMOD Record , Proceedings of the 1996 ACM SIGMOD international conference on Management of data**, Volume 25 Issue 2
Full text available: pdf(1.53 MB) Additional Information: full citation, abstract, references, citings, index terms

This paper describes PBSM (Partition Based Spatial-Merge), a new algorithm for performing spatial join operation. This algorithm is especially effective when neither of the inputs to the join have an index on the joining attribute. Such a situation could arise if both inputs to the join are intermediate results in a complex query, or in a parallel environment where the inputs must be dynamically redistributed. The PBSM algorithm partitions the inputs into manageable chunks, and joins them using ...

15 A framework for the management of past experiences with time-extended situations
Michel Jaczynski
January 1997 **Proceedings of the sixth international conference on Information and knowledge management**
Full text available: pdf(1.20 MB) Additional Information: full citation, references, index terms

16 Array-driven simulation of real databases
William S. Keezer
December 1998 **Proceedings of the 30th conference on Winter simulation**
Full text available: pdf(70.92 KB) Additional Information: full citation, references, index terms

17 Time series similarity measures (tutorial PM-2)
Dimitrios Gunopulos, Gautam Das
August 2000 **Tutorial notes of the sixth ACM SIGKDD international conference on Knowledge discovery and data mining**
Full text available: pdf(1.42 MB) Additional Information: full citation, references, citings, index terms

18 The pyramid-technique: towards breaking the curse of dimensionality
Stefan Berchtold, Christian Böhm, Hans-Peter Kriegal
June 1998 **ACM SIGMOD Record , Proceedings of the 1998 ACM SIGMOD international conference on Management of data**, Volume 27 Issue 2
Full text available: pdf(1.56 MB) Additional Information: full citation, abstract, references, citings, index terms

In this paper, we propose the Pyramid-Technique, a new indexing method for high-dimensional data spaces. The Pyramid-Technique is highly adapted to range query processing using the maximum metric Lmax. In contrast to all other index structures, the performance of the Pyramid-Technique does not deteriorate when processing range queries on data of higher dimensionality. The Pyramid-Technique is based on a special partitioning strategy which is optimized for high-dimension ...

19 Multidimensional access methods
Volker Gaede, Oliver Günther
June 1998 **ACM Computing Surveys (CSUR)**, Volume 30 Issue 2
Full text available: pdf(1.05 MB) Additional Information: full citation, abstract, references, citings, index terms

Search operations in databases require special support at the physical level. This is true for conventional databases as well as spatial databases, where typical search operations include the point query (find all objects that contain a given search point) and the region query (find all objects that overlap a given search region). More than ten years of spatial database research have resulted in a great variety of multidimensional access methods to support ...

Keywords: data structures, multidimensional access methods

20 Algorithm and performance evaluation of adaptive multidimensional clustering technique
Shinya Fushimi, Masaru Kitsuregawa, Masaya Nakayama, Hidehiko Tanaka, Tohru Moto-oka
May 1985 **ACM SIGMOD Record , Proceedings of the 1985 ACM SIGMOD international conference on Management of data**, Volume 14 Issue 4
Full text available: pdf(957.72 KB) Additional Information: full citation, references, citings, index terms

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